

**Westminster REFRAME workshops for Guy's and St Thomas' Hospital staff:  
Evaluation report**

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## **Executive summary**

### **Introduction**

Being a doctor is often a highly rewarding career, but it can be a challenging role. The demands of the job can lead doctors to experience high stress levels and burnout, and put them at risk of psychiatric morbidity. Resilience training, by providing insight, self-regulation skills and time for reflection, may have the potential to mitigate distress and improve physician wellness. The Westminster REFRAME workshop is a half day, intensive resilience-training programme, originally designed for FY1 doctors to help them cope and perform safely and competently as professionals. The workshop, in a form now taught by a larger team of trainers, has been adapted for other medical staff. This report presents evaluation findings on the experiences and outcomes of the workshop for doctors at various stages of their career, as well as a small number of other hospital staff.

### **Methods**

Westminster REFRAME workshops were put on for different groups of staff at Guy's Hospital: speciality training (ST) 1+ doctors, consultants, the Junior doctors leadership group and other members of clinical staff. Generally, different groups were invited to particular workshops and the content was fine tuned slightly to be inclusive when membership was diverse. Workshops' maximum capacity was 20. All attendees were invited to take part in the evaluation. Questionnaires were used to collect quantitative and qualitative data from participants at three time points: immediately prior the workshop (baseline), immediately after the workshop (post workshop), and two months after the workshop (follow-up). Outcome measures collected included perceived stress and positive well-being. Additionally, participants are asked to rate six statements about the workshop (e.g. 'the workshop was useful to me'; 'The ideas and concepts were communicated clearly'). Open-ended questions collected written data regarding participants' experiences and perceptions of the workshop and any changes they had made as a result of attending.

### **Key findings**

- Of the 68 doctors and health professionals attending a Westminster REFRAME resilience workshop, 63 completed baseline and post-workshop questionnaires, and 47 completed a follow-up questionnaire.
- Participants reported elevated levels of stress at baseline.
- Comparisons between baseline and 2-month follow-up questionnaires revealed a statistically significant improvement in both participant stress levels and well-being ratings.
- Participant ratings of various aspects of the workshop presented a positive overall picture of participants' experiences of the day: many responses rated different aspects of the workshop with the maximum scores of 4 and 5.
- Ninety percent of participants said that the workshop was useful, with 8% unsure how useful the workshop had been and 2% reporting not finding it useful. Ninety-two percent of participants felt that the topics covered were useful for their work. The majority of participants said that they intended to use some of the techniques they had learnt on the workshop.

- Participants valued having time to explore stress and resilience issues including sharing experiences of work stress with peers, practical demonstrations on stress management, and having time to reflect on stress and coping.
- Participants reported wanting even more on practical solutions to manage stress in the workshop, some would have liked a longer session.
- Ninety percent of participants reported that they intended to do at least one thing differently as a result of attending the workshop; 75% of those who completed a follow-up questionnaire had actually done something differently. Changes made included using breathing techniques learnt on the workshop, meditating, taking more breaks/time out, adopting a different mental approach to stress/stressful situations, increased reflection on stressful situations, improved communication with colleagues, and approaching certain work situations differently.
- Changes resulted in participants reporting that they were calmer at work and home, more effective at work, taking work home with them less, or had more energy.
- Over half of participants felt that their patients had benefited from their attending a resilience training workshop: doctors felt that being more calm and focussed (as a result of resilience techniques) led to improved interactions with patients and more efficient working.
- The Westminster REFRAME website intended to support doctors to make changes, was rarely used by participants. Key reasons for not doing so included not being aware that it existed, lack of time, and having forgotten about it.
- The new evaluation strategy (e.g. new evaluation procedures, reworked questionnaires) improved the questionnaire completion rate and provided more contextual data regarding how participants were experiencing the workshop.

### Participant quotes

*"Great people – course director (especially [anonymised]) and other consultants on the course. Good to meet and have time with other colleagues. Confirmation that my own speciality is better off than many others. Much less isolated and more team working."*

*"Good group size. Lecturers/facilitators experienced, calm and steered. Open/honest/non-judgemental. Experience sharing. V useful techniques and strategies put in clear way."*

*"Very practical, important information, useful and good to apply to everyday life."*

*"The relationship between my nervous system and thinking demonstrated to me."*

*"Better work life balance ensuring I do regular exercise, and don't work at weekends or on holiday."*

*"This has allowed me to become more focused. Work is work and personal life is separate. I used to find it very difficult not to take ongoing issues at work home and I think I am managing this better."*

### Conclusions

The Westminster REFRAME workshop was generally well received by attending healthcare staff, suggesting that the workshop had been successfully adapted for a wider group of health professionals. Statistically significant improvements in both the stress and well-being scores of participants, along with self-reported behaviour change amongst a number of attendees, suggest that the workshop has the potential to improve staff resilience and well-being. However, findings should now be confirmed with a larger comparative study.

Additional work to support and encourage behaviour change after the workshop may be useful, particularly additional promotion of the resilience website during and after the workshop.

The new evaluation strategy was successful, it improved the questionnaire completion rate providing more reliable data on the workshop. Additionally, the inclusion of a stress measure was useful, as it identified doctors as being vulnerable to high levels of stress. The stronger qualitative element of the evaluation was helpful in providing data on how participants were using the information they had learnt on the course.

## **Acknowledgements**

We would like to thank:

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- Kate Fismer at the Westminster Centre for Resilience for her organisation skills in co-ordinating the workshops
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- Guy's and St Thomas' NHS Foundation Trust and all staff in the department who supported the delivery of the evaluation
- The Westminster REFRAME steering group Prof David Peters, Prof Sarah Stewart-Brown, Prof Damien Ridge, Prof George Lewith and Dr Siobhan Lynch
- All the doctors and other staff who participated in the workshop and completed the evaluation assessments.
- With particular thanks to the late and much missed Prof George Lewith who co-initiated this training, for his untiring enthusiasm for the project.

## **Background literature**

Doctors in the UK have highly demanding jobs; many report that their job provides them with feelings of personal achievement and satisfaction (Deary et al., 1996; Surman, Lambert, & Goldacre, 2016). However, stress has been found to be widespread amongst doctors (Boorman, 2009; Tyssen & Vaglum, 2002; Vijendren, Yung, & Sanchez, 2011), leaving many vulnerable to mental health issues (Feeney et al., 2016). For example, doctors report higher stress levels than the general population, and issues with depression and alcohol-related problems are prevalent (Firth-Cozens, 2001). A review of the literature found that psychiatric morbidity among UK doctors ranged from 17% to as high as 52% in one study, general practitioners and consultants had the highest morbidity scores. The study found that factors associated with higher prevalence were job satisfaction, overload, increased hours worked and neuroticism (Imo, 2016). Despite these problems, doctors often are not very good at seeking formal help (Firth-Cozens, 2001; Úallacháin, 2007).

Burnout is a work-related syndrome involving emotional exhaustion, depersonalisation, and a sense of reduced personal effectiveness. There is growing evidence of burnout among medical students (Cecil, McHale, Hart, & Laidlaw, 2014) and qualified doctors in the UK (Imo, 2016). Doctors' high burnout scores have been linked with significant differences in self-perceived major medical errors (West, Tan, Habermann, Sloan, & Shanafelt, 2009), work hours (Shanafelt et al., 2016) and suicidal ideation (Shanafelt, Balch, Dyrbye, & et al., 2011). On the other hand, doctors who are more empathic, or who deal more effectively with the inherent challenges of a medical life, may be both safer and more effective (Newton 2013). If doctors are to go the career distance and effectively carry out the daily demands of their job without becoming workaholic or burning out, and to be accessible to patients without losing appropriate boundaries, they need considerable personal resilience (Peters, Lynch, Manning, Lewith, & Pommerening, 2016).

Pressures currently faced by doctors seems only likely to intensify. There is currently a state of 'unease' in the UK medical profession due to increased pressure on health and social care services (GMC, 2016). NHS Providers, who speak for hospital trust chairs and chief executives, have warned that the NHS in England is 'under the greatest pressure in generations' (Campbell, 2016).

Both individual (e.g. family background, personality traits) and contextual factors (e.g. perceived workload, stresses outside of work) have been found to be predictive of mental health problems (Tyssen & Vaglum, 2002). However, many of the work related variables associated with high levels of psychological ill health have been found to be potentially amenable to change (Michie & Williams, 2003). With doctor well-being likely to affect patient care and patient satisfaction with services (Firth-Cozens, 2001), interventions aimed at improving doctor well-being are vital for NHS services.

## **Resilience**

Resilience is individual's ability to adapt and manage stress and adversity, it is not a static trait but varies with circumstances, knowledge, skills, and attitudes (Lown, Lewith, Simon, & Peters, 2015). The dimensions of resilience (which include self-efficacy, self-control, ability to engage support and help, learning from difficulties, and persistence despite blocks to

progress) are all recognised as qualities that are important in clinical leaders (Howe, Smajdor, & Stöckl, 2012). Resilience has the potential to improve physician wellness by mitigating distress, especially when used for prevention rather than as a response to existing problems (Johnson, Panagioti, Bass, Ramsey, & Harrison, 2016; Lee, Stewart, & Brown, 2008). Evidence suggests that resilient doctors deliver higher quality care, and are less prone to medication errors and getting sick/leaving practice, all of which have cost implications for the NHS (Epstein, 2014; Lown et al., 2015). The work setting, team dynamics, management attitudes and the organisational culture, all of which may either support or erode a doctor's resilience, will have a major influence on professional behaviour and career sustainability. Given that even the most basic requirements for good professional standards demand so much of a doctor, the need for individual resilience and its study become necessary (Peters et al., 2016).

### **The Westminster REFRAME workshop**

The Westminster REFRAME workshop is a half day, intensive resilience-training programme for doctors and frontline health professionals. It was designed by Professor David Peters and Professor George Lewith at the Westminster Centre for Resilience. The workshop is highly interactive and focuses on self-regulation and self-care, as well as exploring work-habits, lifestyle, mind-set, strategies for controlling workload, setting goals, planning, prioritizing, and saying no to unreasonable requests. The event is designed for groups of up to 20. It aims to engage participants both in sharing experiences and solutions and, with the help of facilitators, to try out self-regulating techniques (e.g. mindfulness, slow breathing). Attendees are encouraged to set themselves SMARTER goals, for experimenting with small positive changes that could boost their resilience.

The workshop sets out to reduce the negative impact on doctors' and frontline health professionals' from their work, and to promote more effective recovery from the adversity and set-backs that they are likely to experience. Improved resilience should enhance well-being, improve job satisfaction, support retention within the UK profession, and support staff to cope and perform safely and competently.

Westminster REFRAME workshops were initially designed for Foundation Year (FY) doctors, and have been delivered to FY1 doctors at Guy's and St Thomas' Hospital since 2014. Initial evaluation data showed that participants valued the workshops and found them useful (Lynch, Peters, & Lewith, 2016). Additionally, similar workshops designed and delivered for GPs, have reported positive findings (Siobhan Lynch et al., 2016). In order to widen participation further, REFRAME workshops have now been designed for a range of hospital staff. During 2017, Westminster REFRAME workshops were delivered to staff at Guy's Hospital, London. This report presents the evaluation findings for these workshops.

## **Methods**

### **Participants**

Westminster REFRAME workshops were put on for different groups of staff at Guy's Hospital: ST1+, consultants, the Junior doctors leadership group and other members of

clinical staff. Generally, different groups were invited to particular workshops to a maximum capacity of 20 in each group.

### **Data collection**

Questionnaires were used to collect quantitative and qualitative data from participants at three time points: immediately prior the workshop (baseline), immediately after the workshop (post workshop), and two months after the workshop (follow-up). The following data were collected:

#### ***Baseline (immediately prior to the workshop)***

**Demographic data** including age, ethnicity and sex.

**Perceived stress** was measured using the Perceived Stress Scale (PSS)(Cohen, Kamarck, & Mermelstein, 1983). The PSS was designed to measure the degree to which participants appraise situations in their lives as stressful. Thus, the authors designed it to be a direct measure of the stress experienced by the respondent, not a measure of psychological symptomology. The 10 PSS items explore feelings and thoughts during the last month and respondents are asked how often they felt a certain way. Each item is scored on a scale of 0 to 4, which are summed to give a total score of between 0 and 40. Higher scores indicate increased stress. The PSS has established validity and reliability (Cohen et al., 1983).

**Positive well-being** was measured using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Tennant et al., 2007). The WEMWBS is a measure of positive mental well-being encompassing items which assess both the hedonic (pleasure) and eudaimonic (virtue, using one's potential and skills) perspectives of happiness. We used the shorter seven-item version of the scale which not only is quicker to complete but may also be more robust than the 14-item version (Stewart-Brown et al., 2009). Items have five response categories (none of the time, rarely, some of the time, often, all of the time). Responses are scored from 1 to 5, providing a total score ranging from 7 to 35. The scale has established validity and reliability (Tennant et al., 2007).

#### ***Post-workshop (immediately after the workshop)***

**Participants' perceptions of the workshop** were collected via open-ended questions collecting qualitative data. Questions included 'Please tell us what made you attend this course?'; 'What did you like about the course?'; 'What could be improved about the course?'; and 'Do you intend to try to do anything differently after attending this course?'

**Participants ratings of the workshop** were collected using the Westminster Quantitative Feedback Questionnaire, a 6-item measure of course satisfaction. Participants are asked to rate six statements on a 5-point Likert scale including 'The workshop was useful to me'; 'The ideas and concepts were communicated clearly'; 'The pace of the day was just right'; 'The balance between theory and experiential learning was just right'; 'The content and topics covered were useful for me for work'; and 'I will use some of the techniques learnt'.



### ***Follow-up (2 months after the workshop)***

**Changes made by participants as a result of what they learnt on the workshop** were ascertained using open-ended questions collecting qualitative data. Participants were asked what they had put into practice from the workshop and how this helped them; about any barriers or facilitators to putting learning into practice; if they had used the REFRAME website and if they had found it useful; and if they felt that their patients had benefited from them receiving resilience training.

**Changes in mental well-being** were ascertained from a repeated administration of the PSS and WEMWBS scales.

### **Procedure**

At the beginning of each Westminster REFRAME resilience workshop a researcher explained the evaluation to participants and invited them to participate. Evaluation packs were handed out, which included a participant information sheet, consent form, the baseline questionnaire and post-workshop questionnaire. Participants were given time to read the information, ask questions and to complete their baseline questionnaire and sign the consent form. Then the workshop commenced. At the end of the workshop participants were given time to complete their post-workshop questionnaire. They then placed both their completed questionnaires and consent form into an envelope and returned them to the workshop facilitator, who then returned all envelopes to the researcher.

Two months after the workshop, participants were emailed a link to complete their follow-up questionnaire online.

### **Data analysis**

Quantitative data were analysed using SPSS version 22. Statistical significance was set at the 5% level. To ensure a conservative analysis, non-parametric tests (Mann Whitney-U, Wilcoxon Signed Rank, McNemar and Chi-square as appropriate) were used throughout. Initially, data were examined for differences between those who did and did not return their post-treatment questionnaire on baseline variables. To examine patient outcomes Wilcoxon Signed Rank tests were used to compare pre- and follow-up data for the PSS and WEMWBS. To explore differences in change in outcome for those who did and did not put into practice what they had learnt at the workshop, change scores for both the PSS and the WEMWBS were calculated and compared using a Mann Whitney-U test for those who reported making/not making changes after the workshop.

Qualitative data collected from open-ended questions on the questionnaires were analysed using thematic analysis (Braun & Clarke, 2006). The researcher (Dr Cheshire) immersed herself in the data, highlighting key sections of text and words. An initial list of themes/codes was developed and then organised into themes to create a final coding list. Typical quotes are used to illustrate findings.

## Findings

### Participants

Sixty-eight doctors and other health professionals attended the Westminster REFRAME workshop during the 2016/17 academic year. Sixty-three agreed to participate and completed baseline and post-workshop questionnaires, and 47 (75%) completed their follow-up questionnaire, see Table 1 for a breakdown of participant within groups.

**Table 1 – Health professionals attending the Westminster REFRAME workshop and participating in the evaluation**

<b>Group</b>	<b>Attended workshop</b>	<b>Completed baseline questionnaire n (%)</b>	<b>Completed follow-up questionnaire n (%)</b>
ST1+ (2 groups)	17	17 (100)	13 (75)
Junior doctors leadership group	17	17 (100)	10 (59)
Consultants	15	13 (87)	12 (80)
Mixed group	19	16 (84)	12 (63)
<b>Total</b>	<b>68</b>	<b>63 (92)</b>	<b>47 (75)</b>

### Demographics

Participants who completed a baseline questionnaire (n=63) had a mean age of 37 years (range 24-60). Two-thirds of the participants were female, there was a range of ethnicities but the largest group were White-British (46%), see Table 2.

Participants reported elevated levels of stress: Participants had an average (mean) score on the Perceived Stress Scale of 20 (range 17-28). A score of around 13 is considered average on this scale, scores of 20 or higher are considered to reflect high stress (Table 4).

**Table 2 – Participant demographics**

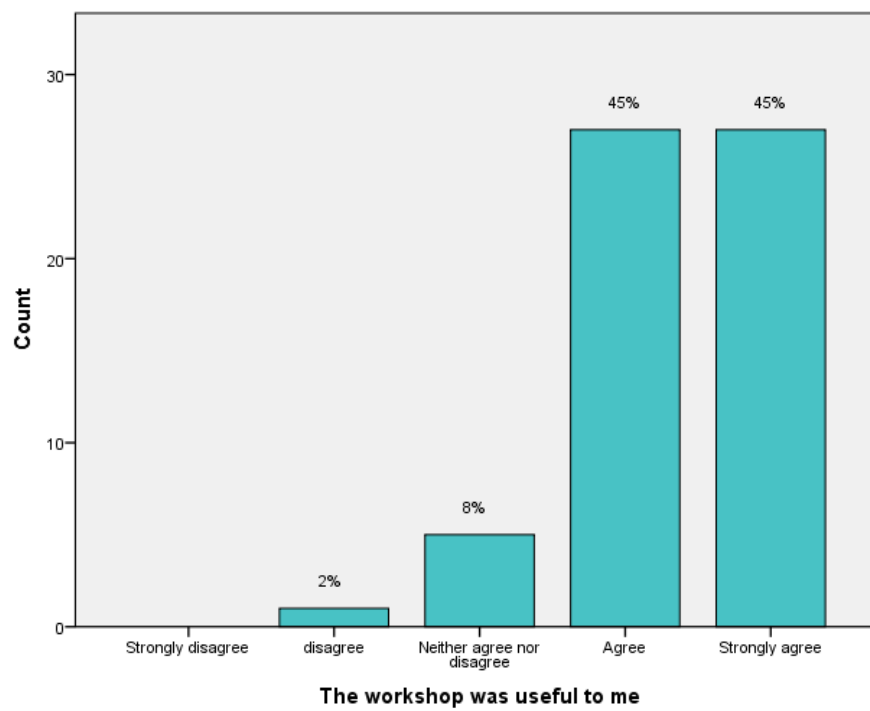
Demographic	Group				
	Total	ST1+	Consultants	JDLG	Mixed group
Age: Mean (range)	<b>37 (24-60)</b>	34 (26-42)	47 (34-57)	32 (25-38)	38 (24-60)
Sex: Number (%)					
Female	<b>42 (67)</b>	11 (65)	10 (77)	9 (53)	12 (75)
Male	<b>21 (33)</b>	6 (35)	3 (23)	8 (47)	4 (25)
Ethnicity: Number (%)					
White – British	<b>29 (46)</b>	8 (47)	5 (38)	7 (41)	9 (56)
White – Other	<b>10 (16)</b>	3 (18)	4 (31)	1 (6)	2 (13)
Asian	<b>6 (10)</b>	1 (6)	2 (15)	3 (18)	-
Mixed race	<b>5 (8)</b>	3 (18)	1 (8)	1 (6)	-
Chinese/Oriental	<b>5 (8)</b>	2 (12)	-	2 (12)	1 (6)
Black/Afro-Caribbean/African	<b>4 (6)</b>	-	1 (8)	2 (12)	1 (6)
Other	<b>2 (3)</b>	-	-	-	2 (13)
Missing	<b>2 (3)</b>	-	-	1 (6)	1 (6)

### Experiences of the Westminster REFRAME workshop

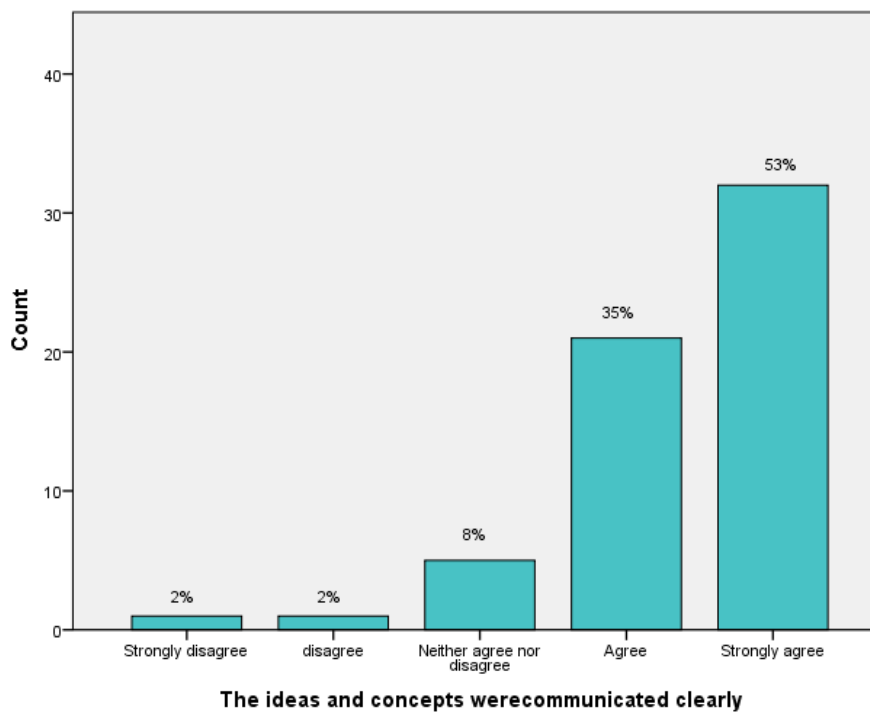
#### *Westminster evaluation scales*

The Westminster evaluation scales overall presented a positive picture of participants' experiences of the workshop: the majority of responses rated different aspects of the workshop with the maximum scores of 4 and 5 (agree or strongly agree). However, some scores were in the lower score range (1-3). Ninety percent of participants said that the workshop had been useful, with 8% unsure how useful the workshop had been and 2% not finding it useful. See Figures 1 to 6.

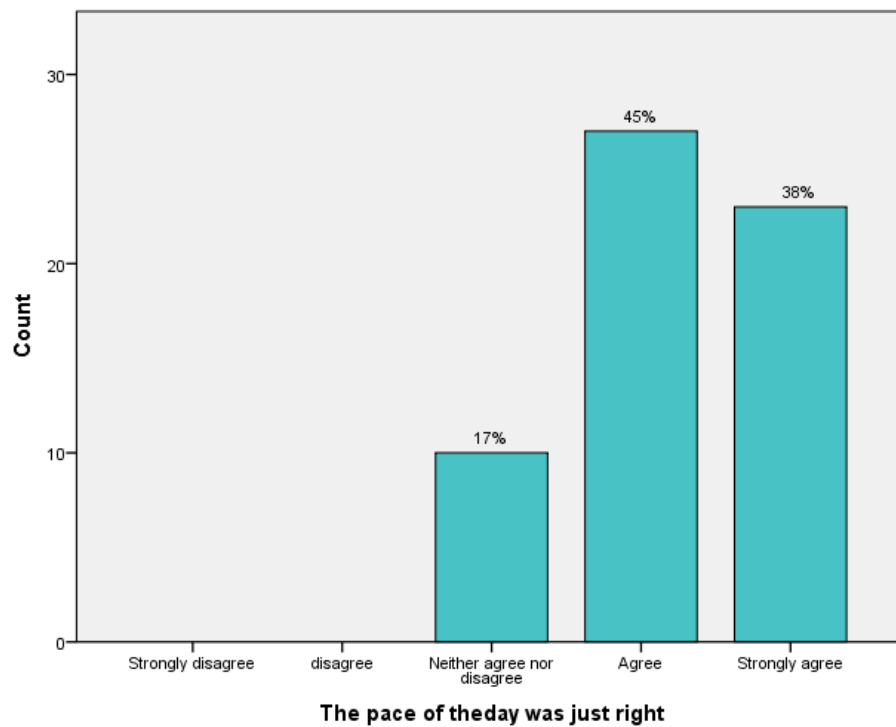
**Figure 1 – The workshop was useful to me**



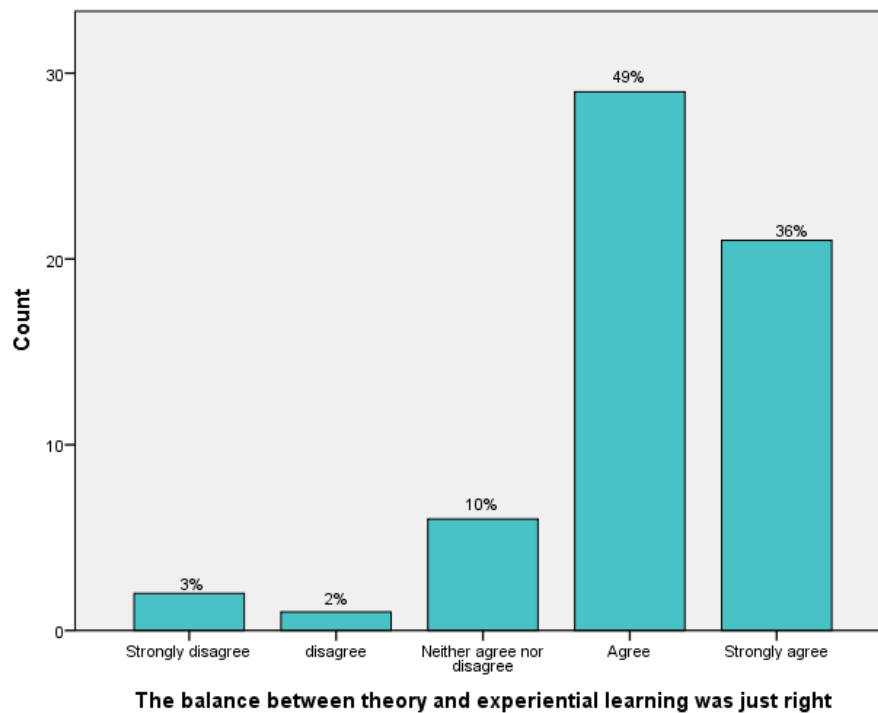
**Figure 2 - The ideas and concepts were communicated clearly**



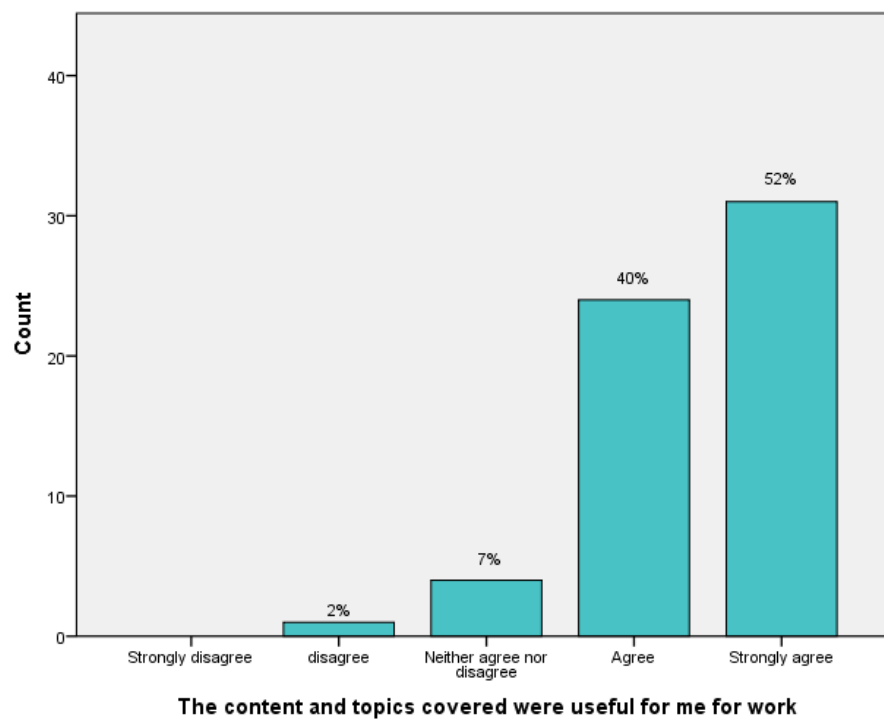
**Figure 3- The pace of the day was just right**



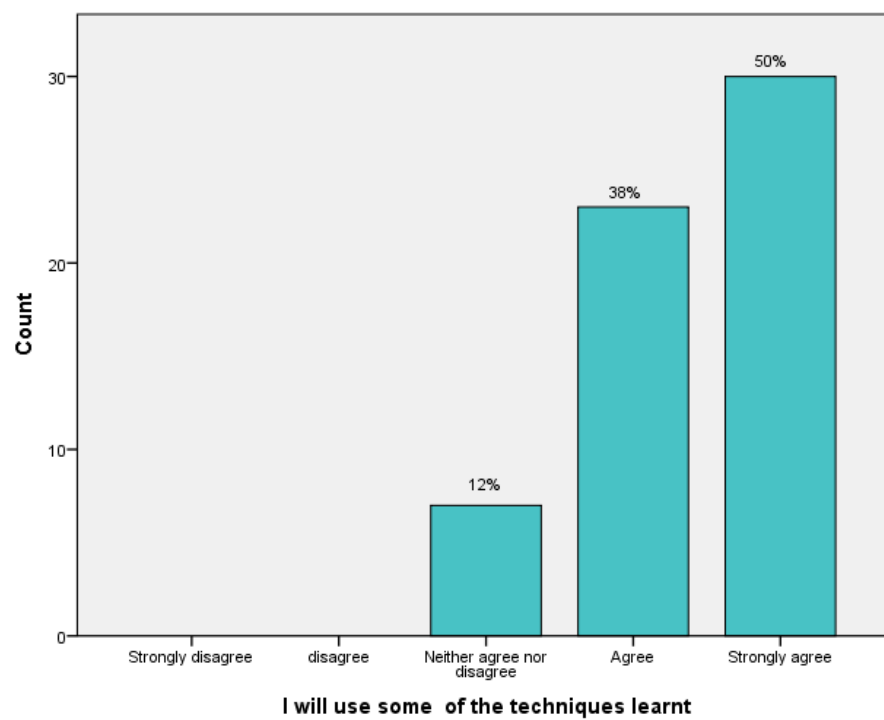
**Figure 4 - The balance between theory and experiential learning was just right**



**Figure 5 - The content and topics covered were useful for my work**



**Figure 6 - I will use some of the techniques learnt**



### **Qualitative feedback on Westminster REFRAME workshop**

Open-ended questions provided insights into the participants' ratings of the workshop. Participants reported liking a wide range of things about the course, commonly cited was being able to meet and share (listen and to be listened to) experiences with colleagues, the supportive and non-judgemental environment of the group was noted as being important here. Two participants stated that they had learnt that they were better off than other colleagues.

*"Great people – course director (especially [anonymised]) and other consultants on the course. Good to meet and have time with other colleagues. Confirmation that my own speciality is better off than many others. Much less isolated and more team working." P88*

*"The ability of offload and not feel judged." P8*

Participants appreciated the time to reflect on personal stressors, coping and resilience. They also reported appreciating the 'science' that was presented on stress and resilience.

*"Opportunity to reflect on stressors/factors that contribute to personal resilience. Also to relate this to neurology concepts." P65*

*"Space to think about my coping mechanism." P71*

Participants liked the practical aspects of the workshop, particularly popular were learning practical techniques to reduce stress and the biofeedback demonstration. Participants also reported liking the app/iPad, breathing exercise, broad scope of issues covered, concept of the 'cave', resilience matrix, small group size and open invitation. Two participants felt the fact that the course had been put on implied an acknowledgement of the stress that many medical staff are under.

*"Good group size. Lecturers/facilitators experienced, calm and steered. Open/honest/non-judgemental. Experience sharing. V useful techniques and strategies put in clear way." P83*

*"A lot! Very interesting to hear the similar experiences of the group, learn some of the science behind this and techniques/methods to help improve my work/life balance." P87*

*"Very practical, important information, useful and good to apply to everyday life." P89*

*"The relationship between my nervous system and thinking demonstrated to me." P95*

*"Generic invitation. Culture of openness. Imbedded in work day." P78*

Participants were also asked what could be improved about the workshop. A number said that they would have liked the workshop to have been longer. Related to this, two participants said that there had been too many slides and some had been on the screen too briefly. Others complained that some slides became too scientific or theoretical at times. A number wanted more practical tips and exercises to support stress management *and* resilience building. Others felt more time at the end to make a concrete individual action plan would have been helpful. A few participants suggested that it would have been

interesting to have external health professional speakers, who had experienced burnout, to share their personal stories.

*"Provide/discuss techniques/ways to improve resilience." P65*

*"Too many slides. Difficult to follow slides/PowerPoint presentations." P88*

*"More time at the end to explore and come up with an action plan. We only discussed this rather than producing something concrete." P7*

*"Maybe more real time experience of colleagues who has been 'burn out' to share experience and what method they used to overcome." P59*

On a more practical note, a few participants would have liked a schedule for the workshop, so that they knew what to expect. Some said that handouts to take away would have been useful. Others suggested an earlier start so the workshop did not clash with afternoon work, or that pre-course prep may be useful in the form of videos.

*"Seemed a bit unstructured at the start (maybe I need to learn to accept uncertainty!). Might have helped to put up an outline of the session at the start, including coffee break." P77*

Participants said that they attended the course due to a general interest in resilience or to get some help with coping with their own personal stressful/difficult life circumstances, some cited specific incidents (e.g. death of patient) which had triggered the interest in attending. Others were interested in knowing how to better support their staff/colleagues. Many of the Junior doctors leadership group said that they had attended as part of the course or because they felt that it would improve their leadership skills.

*"1. Recognise personal symptoms of burnout/lack of resilience/lack of joy at work. 2. recognise whole department has symptoms of burnout." P84*

*"Understanding resilience. Tools for coping/improving resilience." P86*

*"Interest in leadership/quality improvement." P71*

Fifty-seven (90%) of participants said that they intended to try to do at least one thing differently as a result of attending the Westminster REFRAME workshop. The Table below (Table 3), summarises participant responses, as can be seen many connected with the technique of mindfulness.



**Table 3 - What participants intended to do differently after attending resilience training**

What participants will do differently	Number	Percent
Practice mindful breath awareness	31	46
Lifestyle change	10	15
Use of 'calming' techniques	9	14
Take time out when stressed	6	9
Reflect on stress and coping	6	9
Protect time for non-work activities	5	7
Use resilience matrix and power vortex	5	7
Approach situations with different mental attitude	5	7
Be kinder to self	3	4
Further training/reading	3	4
Share learning with others	3	4
Set achievable goals	2	3
Talk to colleagues in difficult situations	1	1

### **Changes after the Westminster REFRAME workshop**

#### ***Changes to participant well-being***

Of the 63 participants who completed a baseline questionnaire, 47 (75%) completed a follow-up questionnaire. Analysis revealed that there were no statistically significant differences between responders and non-responders on any demographic or baseline outcome measures. All statistical analyses were based upon the 47 completed data sets.

Participants' scores on the Perceived Stress Scale (PSS) and the Warwick and Edinburgh Mental Well-Being Scale (WEMWBS) at baseline and follow-up were compared (n=47). Comparisons revealed a statistically significant improvement in the PSS ( $p \leq 0.0001$ ), with a medium effect size ( $r=0.4$ ). Additionally, there was a statistically significant improvement in WEMWBS scores ( $p=0.003$ ), with a medium effect size ( $r=0.3$ ). Tables 4 and 5 present total scores and a breakdown of scores for each group; however, these findings should be treated with caution due to the small sample sizes.

Participants were asked if they had been able to put anything into practice that they had learnt at the workshop: 75% said 'yes', 25% said 'no'. Statistical comparisons revealed that those who responded 'yes' had a statistically significant greater improvement on both the PSS ( $p=0.039$ ) and WEMWBS ( $p=0.031$ ), compared with those responded 'no'.

**Table 4 – Stress scores at baseline and follow-up**

	Group				
	Total	ST1+	Consultants	JDLG	mixed group
<b>Number</b>	47	13	12	10	12
<b>Pre-workshop*</b>	20	19	20	20	20.5
<b>Median (interquartile range)</b>	(18.0-24.0)	(16.0-25.5)	(17.5-21.8)	(17.3-26.8)	(17.8-24.8)
<b>Post-workshop*</b>	16.5	18	15	18.5	15.5
<b>Median (interquartile range)</b>	(14.0-20.0)	(14.0-18.3)	(14.0-20.0)	(14.8-20.0)	(12.3-20.3)
<b>P-value</b>	≤0.0001	0.137	0.116	0.073	.005
<b>Effect size</b>	0.4	NA	NA	NA	NA

\*scores range 0-40, ↑ = worse

**Table 5 – Well-being scores at baseline and follow-up**

	Group				
	Total	ST1+	Consultants	JDLG	mixed group
<b>Number</b>	47	17	11	10	12
<b>Pre-workshop*</b>	24	25	22	23	25
<b>Median (interquartile range)</b>	(21.0-25.0)	(21.0-25.0)	(21.0-24.8)	(22.0-26.8)	(21.0-26.8)
<b>Post-workshop*</b>	26	25	26	23	26
<b>Median (interquartile range)</b>	(23.0-27.0)	(23.0-26.5)	(22.5-26.8)	(20.8-26.3)	(21.3-29.5)
<b>P-value</b>	.003	0.088	0.013	0.635	0.137
<b>Effect size</b>	0.3	NA	NA	NA	NA

\*scores range 7-35 ↑ = better

### ***Putting REFRAME techniques into practice***

Participants who responded to the follow-up questionnaire were asked if they had been able to put anything into practice that they had learnt at the workshop: 75% said 'yes', 25% said 'no'. Qualitative data explored these answers in more detail. A number of participants said that they had been using mindful breathing techniques, either by focussing on their breathing during stressful situations at work or using it to calm themselves at the end of the day. Many others also said that they had been trying meditation, some specifically mentioned using the Headspace app. Others described how they had been trying to ensure that they took more regular breaks – either in work or ensuring that they got more time away from work (improving work/life balance).

*"Ensuring I have planned annual leave/time to myself in between stretches of busy weeks to ensure stress levels don't get too high." P65*

*"Taking a breath when stressed not just working through or a 5 minute break." P2*

*"Better work life balance ensuring I do regular exercise and, don't work at weekends or on holiday." P68*

*"Headspace/calm app and mindfulness exercises." P84*

Some participants had altered the way that they interacted and communicated with their colleagues to support their resilience, for some this was about establishing clearer boundaries (this extended to the home environment for one participant) and saying no when necessary. One participant described how they were asking colleagues more for professional advice, and another felt that they had been communicating more openly with their lead regarding a specific issue.

*"More openness with my lead at work about an outstanding target and made clear plan for next steps." P78*

*"Improve how I apply myself and nurture connections by going through GSTT policies, speaking/emailing colleagues for professional advice." P79*

*"Defining boundaries at work and at home." P83*

For other participants changes were more about how they worked as an individual including tackling work tasks one at a time, allowing time to reflect on situations, and setting achievable targets. Other participants reported changing their attitude to themselves, such as being less 'hard' on themselves, others reported feeling less alone and more resilient. Others had made changes to their lifestyle (e.g. more exercise).

*"Thinking about eating and lifestyle more healthily for resilience."*

*"Less hard on myself and tackling one thing on my list at a time in achievable targets." P78*

Some participants described how making these changes had helped them. Many reported feeling calmer at work and/or home. Some felt that they were able to be more effective at work (e.g. more focussed, complete task more effectively). Others said that they had found that they were not taking work issues home with them or they had more energy than usual. Some also reported that they were 'seeing things differently', were better able to focus on what was important, or felt they were less 'irritating' to others

*"Less tired and more energy for the children. Less tired at work." P83*

*"This has allowed me to become more focused. Work is work and personal life is separate. I used to find it very difficult not to take ongoing issues at work home and I think I am managing this better." P81*

Participants also discussed barriers and facilitators to putting changes into practice. Lack of time or work pressure was cited as a key barrier to making changes. Others acknowledged that making changes was difficult and two had admitted that they had forgotten some of the things that they had learnt. Two participants stated that a lack of awareness of those around them could be an issue, however one of these participants had successfully managed to communicate with colleagues about this.

*"Busy working days have impeded but not prevented." P92*

*“Stress at work, lack of awareness from those around me.” P113*

Few facilitating factors were cited. Some said that it was just a question of personal effort. For others, elements of the course had been helpful such as the resilience matrix, the postcard reminder, understanding that simple changes could make a difference, or realising that they were not alone. Two participants said that having more time either by reducing working hours or being off sick from work had provided them with time to reflect/put changes into practice. For others, external factors like support from family or using resources such as the resilience matrix and the GSTT Living Well Values were helpful.

*“I became ill with [illness] 2 months ago resulting in time off work so had time to re-evaluate quality of life and work life balance re. taking on too much etc.” P76*

*“The Resilience Matrix, identifying resources and putting the Living the Values (GSTT) printout on the wall next to my desktop.” P79*

### **The Westminster REFRAME website**

The Westminster REFRAME website was intended to support participants to make changes to improve their resilience, details of how to access the website were emailed to participants after they attended their workshop. However, only two participants had used the website, reasons for not doing so included lack of time, did not feel that it would be useful, not being aware that it existed and lost the link.

### **Benefit to patients**

Participants were also asked if they felt receiving resilience training had potentially benefitted their patients. Twenty-eight of the 47 (60%) participants agreed that it did benefit their patients (or at least had the potential to). By being calmer and more focussed doctors felt that this led to improved interaction with patients and more efficient working. One doctor felt that some of his patients could benefit from the techniques he had learned.

*“It makes me work more efficiently and handle difficult situations better and this has helped patients in the way I approach tasks and made me more effective in handling their needs.” P98*

*“Yes, I am less 'fatigued' by medicine and come to it with fresh eyes.” P83*

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